AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1.   (Currently Amended)   A device for Multimedia authentication of a user equipment (UE) accessing a Multimedia domain (IMS) through an access network (~~UMTS; WLAN; GPRS; CDMA 2000~~), the device for use in, or in co-operation with, a subscriber server (~~HSS; AAA~~) of the access network holding authentication data for the user equipment and accessible to the Multimedia domain (IMS), the device ~~characterised by~~ comprising:

    means for deciding that an implicit authentication between the user equipment (UE) and the Multimedia domain (IMS) can take place based on a previous authentication of the user by the access network thus skipping the needs for an explicit authentication; and

    means for instructing a serving entity (S-CSCF) in charge of authenticating the user equipment (UE) in the Multimedia domain (IMS) that implicit authentication can take place.

2.   (Original)   The device of claim 1, wherein the means for deciding that an implicit authentication can take place includes

    means for determining the potential security of the signalling path to access the Multimedia domain through said access network.

3.   (Currently Amended)   The device of claim 1, wherein the means for instructing the serving entity that an implicit authentication can take place includes ~~include~~ means for indicating (Implicit Authentication) that the final decision is on the user equipment ~~user's~~ side (UE) which can ~~might~~ force an explicit authentication.

4. (Currently Amended) The device of claim 1, wherein the means for instructing the serving entity that an implicit authentication can take place <u>includes</u> <s>include</s>

means for indicating <s>(Implicit Authentication by network)</s> that this is a final decision taken by the network and no explicit authentication can be carried out.

5. (Currently Amended) The device of claim 1, further including means <s>(Implicit Authentication; Implicit Authentication by the network)</s> for notifying the <u>user</u> <s>user's</s> equipment that an implicit authentication of the user <u>equipment</u> for accessing the Multimedia domain can by carried out by the network.

6. (Currently Amended) The device of claim 1, wherein the means for deciding that an implicit authentication between the user <u>equipment</u> (UE) and the Multimedia domain (IMS) can take place includes

means for receiving a proposal of implicit authentication <s>(SSO proposal)</s> originated from the <u>user</u> <s>user</s> equipment (UE).

7. (Currently Amended) The device of claim 3, further comprising means for receiving an indication <s>(SSO enabled)</s> <u>originating</u> <s>originated</s> from the <u>user</u> <s>user</s> equipment (UE) to confirm the acceptance of the implicit authentication proposed by the network.

8. (Currently Amended) The device of claim 7, further comprising means for indicating <s>(Implicit Authentication user-confirmed)</s> to the serving entity <s>(S-CSCF)</s> in charge of authenticating the user in the Multimedia domain (IMS) that the user has confirmed the implicit authentication.

9. (Currently Amended) The device of claim 8, further comprising means for providing additional authentication data to said serving entity <s>(S-CSCF)</s>, said additional authentication data including at least one element selected from a group of

elements comprising: authentication type; access information; and authentication timestamp.

10. (Currently Amended) A user equipment (UE) enabled to <u>obtain</u> <s>get</s> access to a Multimedia domain (IMS) through an access network <s>(UMTS; WLAN; GPRS; CDMA 2000)</s>, and arranged to carry out a first explicit Authentication procedure with the access network and a second explicit authentication procedure with the Multimedia domain (IMS), the <u>user</u> <s>user</s> equipment (UE) <u>comprising</u> <s>characterised by having</s> means for processing at least one notification selected from a group of notifications including:

A <u>first</u> notification <s>(Implicit Authentication; Implicit Authentication by the network)</s> received from the Multimedia domain (IMS) indicating that an implicit authentication for the user <u>equipment</u> can be carried out by the network; and

A <u>second</u> notification <s>(SSO Proposal)</s> proposed from the <u>user</u> <s>user's</s> equipment (UE) towards the Multimedia domain (IMS) to carry out an implicit authentication between said <u>user</u> <s>user's</s> equipment and Multimedia domain.

11. (Currently Amended) The <u>user</u> <s>user's</s> equipment (UE) of claim 10, wherein the means for processing a notification received from the Multimedia domain (IMS) includes means for receiving and processing an <u>Implicit Authentication</u> indication <s>(Implicit Authentication)</s> that the final decision is on the <u>user</u> <s>user's</s> equipment (UE) which <u>can</u> <s>might</s> force an explicit authentication.

12. (Currently Amended) The <u>user</u> <s>user's</s> equipment (UE) of claim 11, further comprising means for sending towards the Multimedia domain (IMS) an <u>SSO enabled</u> indication <s>(SSO enabled)</s> to confirm the acceptance of the implicit authentication proposed by the network.

13. (Currently Amended) The <u>user</u> <s>user's</s> equipment (UE) of claim 12, further comprising means for providing additional authentication data towards the Multimedia domain (IMS), said additional authentication data including at least one

element selected from a group of elements comprising: authentication type; access information: and authentication timestamp.

14. (Currently Amended) The ~~user~~ user's equipment (UE) of claim 10, wherein the means for processing a notification received from the Multimedia domain (IMS) includes means for receiving and processing an indication of ~~(Implicit~~ Implicit Authentication by the network ~~network)~~ that the implicit authentication is a final decision taken by the network and no explicit authentication can be carried out.

15. (Currently Amended) A method for authenticating a user equipment (UE) accessing a Multimedia domain (IMS) through an access network ~~(UMTS; WLAN; GPRS; CDMA 2000)~~, the method comprising the steps of:

~~a step of~~ authenticating the user in the access network ~~(UMTS; WLAN; GPRS; CDMA 2000)~~ where the user accesses through[[,]] the access network having a subscriber server ~~(HSS; AAA)~~ with authentication data for the user and accessible to the Multimedia domain (IMS); ~~and~~

~~a step of~~ registering the user equipment (UE) into the Multimedia domain (IMS);

~~the method characterized by comprising:~~

~~a step of~~ deciding that an implicit authentication between the user (UE) and the Multimedia domain (IMS) can take place based on the previous authentication of the user equipment (UE) in the access network, thus skipping the needs for an explicit authentication; and

~~a step of~~ instructing a serving entity ~~(S-CSCF)~~ in charge of authenticating the user (UE) in the Multimedia domain (IMS) that implicit authentication can take place.

16. (Currently Amended) The method of claim 15, further comprising a step of notifying from the Multimedia domain (IMS) ~~(Implicit Authentication; Implicit Authentication by network)~~ to the ~~user~~ user's equipment (UE) that implicit authentication of the user equipment for accessing the Multimedia domain can by carried out.

17.　　(Original)　　　The method of claim 15, wherein the step of deciding that an implicit authentication can take place includes a step of determining the potential security of the signalling path to access the Multimedia domain through said access network.

18.　　(Currently Amended)　　　The method of claim 15, wherein the step of deciding that an implicit authentication can take place includes a step of proposing from the user ~~user's~~ equipment (UE) towards the Multimedia domain (IMS) an implicit authentication to be carried out between said user ~~user's~~ equipment and Multimedia domain.

19.　　(Currently Amendedl)　　　The method of claim 15, wherein the step of instructing the serving entity that an implicit authentication can take place includes ~~include~~ a step of indicating ~~(Implicit Authentication by the network)~~ ~~that this~~ that the Implicit Authentication is a final decision taken by the network and no explicit authentication can be carried out.

20.　　(Currently Amended)　　　The method of claim 15, wherein the step of instructing the serving entity that an implicit authentication can take place includes a step of indicating ~~(Implicit Authentication)~~ that the final decision is on the user ~~user's~~ equipment which can ~~might~~ force an explicit authentication.

21.　　(Currently Amended)　　　The method of claim 20, further comprising a step of confirming ~~(SSO enabled)~~ from the user ~~user's~~ equipment (UE) acceptance of an implicit authentication proposed by the network.

22.　　(Currently Amended)　　　The method of claim 21, further comprising a step of indicating ~~(Implicit Authentication user-confirmed)~~ to the serving entity ~~(S-CSCF)~~ in charge of authenticating the user equipment (UE) in the Multimedia domain (IMS) that the user equipment has confirmed the implicit authentication.

23.   (Currently Amended)   A serving entity (S-CSCF) in charge of authenticating a user equipment (UE) in the Multimedia domain (IMS) when the user equipment accesses thereto through an access network (UMTS; WLAN; GPRS; CDMA 2000) where said user equipment had been previously authenticated, the serving entity (S-CSCF) characterized by comprising:

    means for receiving and processing instructions (Implicit Authentication; Implicit Authentication by the network) originating originated from a device for Multimedia authentication of a user equipment (UE) the device of claim 1 indicating that an implicit authentication can take place based on the previous authentication of the user equipment (UE) by the access network; and

    means for notifying (Implicit Authentication; Implicit Authentication by the network) to a user's the user equipment (UE) that an implicit authentication of the user equipment for accessing the Multimedia domain (IMS) can by carried out by the network.

24.   (Currently Amended)   The serving entity (S-CSCF) of claim 23. also comprising means for receiving an indication (SSO enabled) originated from the user user's equipment (UE) of claim 12 to confirm acceptance of an implicit authentication proposed by the network.

25.   (Currently Amended)   The serving entity (S-CSCF) of claim 23, further comprising means for receiving an indication (Implicit Authentication user-confirmed) originated originating from a device for Multimedia authentication of a user equipment (UE) the device of claim 8 indicating that the user equipment has confirmed the implicit authentication.

26.   (Currently Amended)   The serving entity (S-CSCF) of claim 25, further comprising means for checking the matching of additional authentication data respectively received from the device for Multimedia authentication of a user equipment

(UE) ~~the device of claim 9~~ and from the user ~~user's~~ equipment for providing ~~of claim 13 in order to provide~~ an extra security support.

27. (Currently Amended)   The serving entity ~~(S-CSCF)~~ of claim 26, wherein said additional authentication data include at least one element selected from a group of elements comprising: authentication type; access information; and authentication timestamp.

28. (Currently Amended)   The serving entity ~~(S-CSCF)~~ of claim 23, wherein the means for notifying the user equipment (UE) that an implicit authentication can by carried out by the network includes means for indicating to ~~(Implicit Authentication by the network)~~ the user equipment (UE) that the implicit authentication is a final decision taken by the network and no explicit authentication can be carried out.

29. (Currently Amended)   A Proxy entity ~~(P-CSCF)~~ intended to act as an entry point into the Multimedia domain (IMS) for a user equipment ~~users~~ (UE) accessing thereto through an access ~~(UMTS; WLAN; GPRS; CDMA-2000)~~ network where the user equipment had been previously authenticated, ~~characterized by~~ having means for processing at least one notification selected from a group of notifications including:
a notification ~~(Implicit Authentication; Implicit authentication by the network)~~ sent towards the user ~~user's~~ equipment (UE) to indicate that an implicit authentication of the user equipment for accessing the Multimedia domain (IMS) can by carried out by the network; and
a notification ~~(SSO Proposal)~~ received from the user ~~user's~~ equipment (UE) to propose an implicit authentication towards the Multimedia domain (IMS) between said user ~~user's~~ equipment and Multimedia domain.

30. (Currently Amended)   The Proxy entity ~~(P-CSCF)~~ of claim 29 further comprising means for receiving an indication ~~(SSO enabled)~~ from the user ~~user's~~ equipment (UE) accepting the implicit authentication proposed by the network.

31.   (Currently Amended)   The Proxy entity (P-CSCF) of claim 29 further comprising means for indicating (Implicit Implicit Authentication by the network network) to the user equipment (UE) that the implicit authentication is a final decision taken by the network and no explicit authentication can be carried out.

32.   (Currently Amended)   An interrogating entity (I-CSCF) querying a subscriber server (HSS; AAA-3GPP) in the Multimedia domain (IMS) about a user equipment (UE) having accessed said Multimedia domain through an access network (WLAN; GPRS), the interrogating entity having means for receiving a registration request from the user, and means for acknowledging such registration towards the user equipment, and characterized by the interrogating entity comprising means for transmitting an indication (Implicit Authentication; Implicit authentication by the network) towards the user equipment (UE) that an implicit authentication of the user for accessing the Multimedia domain (IMS) can by carried out.

33.   (Currently Amended)   The interrogating entity (I-CSCF) of claim 32 further comprising:

        means for receiving an indication originating (SSO enabled; SSO proposal) originated from the user user's equipment (UE) to enable an implicit authentication: and

        means for transmitting such indication from the user user's equipment towards at least one entity selected from a group of entities that comprise: comprising

                a device for Multimedia authentication of a user equipment the device of claim 1 and a serving entity in charge of authenticating a user equipment the serving entity (S-CSCF) of claim 23.

34.   (Currently Amended)   The interrogating entity (I-CSCF) of claim 32 further comprising means for transmitting towards the user equipment (UE) an indication (Implicit Authentication by the network) that the implicit authentication is a final decision taken by the network and no explicit authentication can be carried out.